

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

5622
56
C2

and **Soil Water Conservation**

News

United States
Department of
Agriculture

Soil
Conservation
Service



JULY-AUGUST 1991

Volume 12, Number 2



**Wetlands,
Wildlife, and CRP**

Cover: SCS and other natural resource organizations work together to help wildlife prosper throughout the prairie pothole habitat in the Dakotas. Waterfowl (swans are pictured), marshbirds, songbirds, and many other kinds of wildlife use these wetlands. (Erwin W. Cole photo)

Soil and Water Conservation News is the official magazine of the Soil Conservation Service. The Secretary of Agriculture has determined that publication of this periodical is necessary in the transaction of public business required by law of this Department. Use of funds for printing *Soil and Water Conservation News* has been approved by the Director of the Office of Management and Budget. *Soil and Water Conservation News* (ISSN-0199-9060) is published 6 times a year. Postage paid at Washington, D.C.

Soil and Water Conservation News and other SCS reports are available electronically on the Computerized Information Delivery (CID) System. For subscription information, call 202-447-5505.

Edward Madigan
Secretary of Agriculture

James Moseley
Assistant Secretary
Natural Resources and Environment

William J. Richards
Chief
Soil Conservation Service

Henry Wyman
Director
SCS Public Information Division

Leslie Jane Wilder
Editor

Paul DuMont
Mary Jo Stine
Associate Editors

Klm Berry-Brown
Ted Kupellan
Contributing Editors

Chris Lozos
Design Consultant

Magazine Inquiries
Send inquiries to: The Editor, *Soil and Water Conservation News*, Public Information Division, Soil Conservation Service, U.S. Department of Agriculture, P.O. Box 2890, Washington, DC 20013-2890.

Subscriptions
\$6.00 per year domestic; \$7.50 per year foreign. Single copies \$1.25 domestic; \$1.50 foreign. Send subscription orders to: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402

Reprint permission
Content of this magazine may be reprinted without special permission. Mention of source is requested. Noncopyrighted photos are available to mass media in color transparencies or black and white glossies.

Commercial names
Mention of commercial enterprises or brand names does not constitute endorsement or imply preference by the U.S. Department of Agriculture.

All programs and services of the Soil Conservation Service are offered on a nondiscriminatory basis, without regard to race, color, national origin, religion, sex, age, marital status, or handicap.

Comments from the SCS Chief:

Why We Need Wetlands

Wetlands have a place in the endless water cycle that keeps nature in balance. Wetlands are valuable in improving water quality, recharging ground water aquifers, and retarding soil erosion and flood damage. They provide fish and wildlife habitat and contribute to the beauty and diversity of the rural landscape. We all have an interest in preserving and restoring them.

The agricultural community has a special interest, for a number of reasons. Wetlands can provide forage and hay for livestock during times of drought. They can offer opportunities for economic return through fee-access recreation. Commercially important seafood species, such as shrimp, crawfish, and many fish, use natural wetlands as spawning grounds.

The public support for preserving and restoring wetlands is reflected in the 1985 and 1990 farm bills. The 1985 farm bill's "Swampbuster" provision tied eligibility for USDA program benefits to wetlands protection.

The Swampbuster provision is strengthened in the 1990 farm bill, which triggers loss of benefits as soon as farmers clear, drain, or otherwise alter wetlands to make planting possible. The 1990 law also recognizes that mistakes can be made. For first-time, unintentional violations, therefore, the penalties may be graduated, according to the severity of the violation.

I urge farmers and ranchers to consult their local SCS offices prior to undertaking any drainage or alteration of a wetland. SCS is making wetland determinations and certifying those determinations to the Agricultural Stabilization and Conservation Service (ASCS).

This is a two-step process. Initial wetland determinations are mapped and provided to each producer. This notification provides the producer the opportunity to informally discuss these determinations with the local SCS staff. Corrections are made based on any additional information provided by the producer. The second step is a formal notification to each producer. Final wetland determinations are certified to ASCS and may be appealed if a producer disagrees with the final determination.

Many farmers may also need permits under Section 404 of the Clean Water Act. We are working closely with the U.S. Army Corps of Engineers and other agencies to coordinate activities of the farm bills and the Clean Water Act.

We at SCS want to help farmers and ranchers run a profitable business and at the same time understand and carry out their environmental responsibilities. We see preserving and restoring wetlands as part of a comprehensive approach to resource planning that will contribute to an economically and environmentally sound agriculture.



Chief

Contents



-
- 4** SCS Programs to Emphasize Wetland Restoration
'Plan' Ties Wetlands and Landowners
-

- 6** **Grasslands, Wetlands, and More Wildlife**
Harmony in Dakotas' Coteau
James River Flooding Creates a Wetland (S. Dak.)
-

- 12** Family Farming in Minnesota
-

- 14** Wisconsin Wetlands Restored
-

- 15** Wildlife Rewards Cleanup (Fla.)
-

- 15** Farmers Feel 'It's the Pits!' for Wildlife (Colo.)
-

- 17** Improving a Wetland (Idaho)
-

- 18** **International Conservation**
It's as Old as the Hills
Conservation Gambian Style
Aquaculture, Rice Give Focus to Mexico Duty
-

Departments

-
- 22** News Briefs
-

- 24** Conservation Calendar
-

USDA
NATL AGRIC LIBRARY
1998 OCT 27 P 3:08
CURRENT SERIAL REQUISITION
AND SERIALS BRANCH

CORRECTION: In the Farm Bill side-by-side comparison on page 6 of the May-June 1991 issue, an extra paragraph appears, through an editing error. Under the 1990 Farm Bill section, second column, please delete the fourth paragraph from the bottom, which begins "Annual payments not to exceed..."

SCS Programs To Emphasize Wetland Restoration

IN 1989, THE SOIL Conservation Service formed the Wetland Restoration and Creation workgroup to examine existing SCS programs and technologies involved with wetlands. The workgroup's task was to recommend ways to emphasize wetland-

perpetuation actions in a manner compatible with the agency's mission and goals in private-sector agriculture.

The workgroup prepared over 40 recommendations to promote SCS's role in wetland restoration, creation, and enhancement. Some were specific action items; others were broader in perspective.

Recommendations are summarized into these general categories:

- Voluntary wetland restoration, creation, and enhancement should be elevated to a higher priority within SCS and private-sector agriculture.
- Project and onfarm conservation planning efforts should identify and include wetland restora-

tion, creation, and enhancement projects where appropriate.

- Because the science of wetland restoration, creation, and enhancement is rapidly evolving, SCS should update existing technical references and develop new tools for use by technical staff.
- SCS staff needs to be trained on how to restore, create, and enhance wetlands.
- SCS information efforts are needed to educate the public about wetland values.

Randall L. Gray, staff biologist, and **Paul G. DuMont**, associate editor, *Soil & Water Conservation News*, SCS, Washington, D.C.

'Plan' Ties Wetlands and Landowners

"OUR VAST flocks of waterfowl have great meaning for those of us who live in North America. The change of seasons would somehow not be the same if there were no geese flying in V-formation to herald the departure of summer and the arrival of [fall].

"Even [people] who do not often see waterfowl like to know they are out there, somewhere, following their ancient migrations from

north to south and back again.

"But in our modern world, this precious natural heritage needs human help to survive and flourish."

These are parts of the opening paragraphs in a U.S. Fish and Wildlife Service popular publication describing how U.S. and Canadian wildlife biologists coordinated to prepare a far-reaching document, *The North American Waterfowl Management Plan*.

The Plan provides a broad framework for waterfowl management and conservation efforts in the United States and Canada through the year 2000. The Plan:

- Sets goals for duck, goose, and swan populations;
- Identifies habitat conservation needs in specific regions of the continent; and

- Recommends measures for solving problems of international concern.

Each county, State, Province, and Territory will need to establish specific plans for habitat preservation in its respective jurisdiction. The Plan's success will also require voluntary participation of private organizations and individuals to help conserve waterfowl.

Loss of wetland habitat is the most serious threat facing North America's waterfowl. Small pot-holes in the northern prairies, vast southern bottomland hardwood swamps, and the coastal marshes are essential for their breeding, migration, and wintering.

The Plan recommends going directly to those who can do the most good—farmers and ranchers

The Plan recommends going directly to those who can do the most good—farmers and ranchers on whose land millions of waterfowl nest.



White pelicans nest and roost on sparsely vegetated islands and bars in Chase Lake National Wildlife Refuge, N. Dak., which is a designated special project within the Prairie Pothole Joint Venture area of the North American Waterfowl Management plan. SCS provides conservation technical assistance to the U.S. Fish and Wildlife Service at Chase Lake. (Erwin W. Cole photo)

on whose land millions of waterfowl nest. Many such landowners are interested in managing their lands to enhance waterfowl production, if it can be made compatible with their own necessary agricultural operations.

The Soil Conservation Service, through the Nation's soil and water conservation districts, helps such landowner efforts by providing technical assistance on soil and water resources and on wetland restoration, creation, and enhancement.

Other U.S. Department of Agriculture agencies plus State wildlife and habitat restoration programs often can provide financial incen-

tives to encourage these landowners to manage their wetlands in ways to enhance waterfowl production and other uses.

When properly managed, wetlands are important nesting and foraging grounds for songbirds, small mammals, and invertebrates; spawning areas for many important fish and shellfish; and habitat for unique vegetation.

Wetlands serve as storage areas for floodwaters; buffers to storms, erosion, and sedimentation; and filters for pollution and other types of contamination in the environment.

Furthermore, everyone who enjoys fish and wildlife habitat can

benefit from habitat conservation measures outlined in The North American Waterfowl Management Plan.

And SCS can help interested landowners apply wise soil and water conservation practices in their management plans that will attract the heron and marsh wren, enhance mallard and canvasback nesting, and perpetuate the geese flying in V-formation.

Randall L. Gray, staff biologist, and **Paul G. DuMont**, associate editor, *Soil & Water Conservation News*, SCS, Washington, D.C.

Grasslands, Wetlands,

Harmony in Dakotas' Coteau

THE DAKOTAS USED to be known as the "Pheasant Capital of the United States," but that was back in the 1950's. Pheasant and sharp-tailed grouse numbers suffered during the next three decades.

But Dennis and Jean Fagerland, crop and livestock farmers near Langford, S. Dak., believe that by

using the Soil Conservation Service technical assistance and doing the U.S. Department of Agriculture Conservation Reserve Program (CRP) plantings, they are playing an important part in restoring local pheasant and grouse populations.

"We have three CRP contracts covering 630 acres," report the Fagerlands. "The switchgrass, intermediate wheatgrass, alfalfa, and sweet clover plantings brought back pheasants and sharp-tailed grouse to our land. And we see lots more ducks, geese, antelope, and deer now with all our new grassland."

"The U.S. Fish and Wildlife Service (FWS) helped the Fagerlands restore 23 wetland areas on CRP



Sharp-tailed grouse populations may increase because of extensive CRP plantings in the Dakotas. (N. Dak. Game and Fish photo)



Jean Fagerland (left), of Langford, S. Dak., and Connie Vicuna, SCS State biologist from Huron, S. Dak., examine intermediate wheatgrass, a part of the Fagerlands' CRP plantings. They provide improved wildlife habitat for pheasants, sharp-tailed grouse, and waterfowl. (Paul G. DuMont photo)

plantings during the first contract year," said Dick Gilbert, FWS refuge manager at nearby Waubay, S. Dak. "And there's great potential there: over 250 wetland tracts of at least 6 acres each."

Robert "Bud" Pearson lives near the Fagerlands in Marshall County, S. Dak. He's in his 60's and retired from teaching. He lets others crop his land. And he remembers how waterfowl and upland game used to flourish on his and the Fagerlands' farm lands in the 1940's and 1950's.

Pearson wants to restore his big slough for waterfowl so he can "attract birds like they were." He used to "lead hunters here before."

SCS and FWS will work together with Pearson to help him restore

And More Wildlife

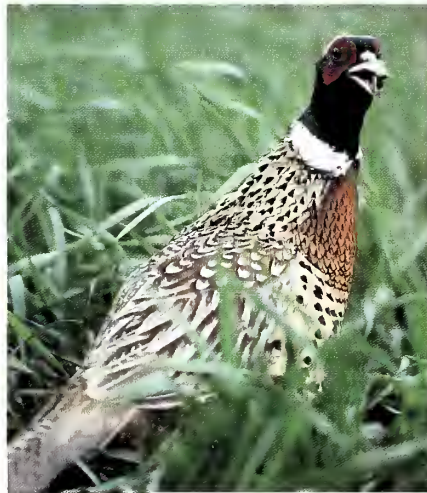


Dave Dewald (center), SCS State biologist from Bismarck, N. Dak., discusses cover plantings at Sweetgrass Restoration Project site with U.S. Fish and Wildlife Service biologists from Bismarck, Scott Collins (left) and Steve Donovan. (Clayton Wold photo)

and preserve his wetlands for wildlife. Other Federal, State, and local agencies and groups may assist.

They can include the soil and water conservation districts; the Agricultural Stabilization and Conservation Service; the Bureau of Reclamation; the State Departments of Game, Fish and Parks; Ducks Unlimited; 4-H and FFA chapters; Izaak Walton League chapters; and Pheasants Forever chapters.

"We're getting really good at spreading our money and staff hours throughout the Dakota Coteau without stepping on each other's toes," said Connie Vicuna, SCS State biologist from Huron, S.



Extensive grasslands from CRP plantings and altered cutting schedules now provide ring-necked pheasants in Dakotas' Coteau areas with additional food, cover, and nesting habitat. (Ron Nichols photo)

Dak. "By working together to help landowners, it's a win-win situation for wildlife!"

Coteau is a French word for side of the valley. One SCS soil survey publication described this upland as "a plateau highland shaped like a flatiron."

The Coteau in North Dakota parallels the Missouri River channel and extends eastward about 100 miles. The Coteau in South Dakota is further eastward, covering the eastern quarter of the State.

The myriad of wetland basins peppering the Coteau landscape are a legacy from the continent's last glaciation. Yet less than half the wetlands that once existed still remain.

Federal and State censusing of waterfowl and upland game statistically confirm what Bud Pearson, the Fagerlands, and other such landowners "feel and remember"—the drastic decline of "dabbler and diver" ducks, pheasants, and grouse nesting in and using pot-hole marshes and adjacent native grasslands in the Coteau.

Most alarming has been the decline in mallard, gadwall, pintail, blue-winged teal, canvasback, red-head, and ruddy duck use during much of the 1980's.

Various landowners and wildlife specialists suggest the cause dates back to drainage and channelization begun in the 1950's and earlier. Throughout the Coteau pot-hole lands for the next two decades, hundreds of individual land-

owners cut hundreds and hundreds of drainage ditches to carry off "excess" water and to increase agricultural production.

By the mid-1980's, the results blighted the landscape. Dryland, weedy, eroding basins were as prevalent as remaining wetlands, and mallards, teal, and redheads went elsewhere. But the Food Security Act of 1985 brought Federal and State agencies together, and wetland restoration became a "we" effort. The trigger was CRP.

"The 1985 farm bill and CRP wedded conservation and wetland efforts of SCS and FWS," said Greg Siekaniec, Chase Lake Project manager for the FWS at Woodworth, N. Dak.

The U.S. Department of Agriculture has two programs that benefit habitat and protect soil: the Conservation Reserve and the Water Bank. Under the Food Security Act of 1985, CRP also helped restore degraded wetlands. The Water Bank protects existing wetlands for waterfowl production.



Restoring and preserving wetland habitat can increase use by shoveler (pictured), other waterfowl, and many kinds of wildlife in the Dakotas. (U.S. Fish and Wildlife Service photo)

Once landowners had enrolled portions of their lands in these programs, FWS wetland specialists discovered it was much easier to

find out which landowners would be interested in going one step further-extensive wetland restoration and/or improvement.

"Joint agency efforts are commonplace in North Dakota," said Steve Donovan, FWS wildlife biologist from Bismarck, N. Dak.

"Sweetgrass and Pipestone Wetland Restoration Projects are examples of Bureau of Reclamation-SCS-FWS joint activities."

After the landowner sells the wetland to the Bureau of Reclamation, SCS designs the wetland restoration needed, including plugging the old drainage ditch with earthen fill. A local conservation



American sloughgrass, an emergent aquatic plant, grows abundantly in this restored wetland on the Garrett Sikkink property near Webster, S. Dak. (Colette Adrian photo)



Owners of this site in Kingsbury Co., S. Dak., call it Wild Ideas. SCS and the U.S. Fish and Wildlife Service helped owners close two large drains to create nesting, feeding, and cover habitat in 48- and 19-acre wetlands. (Paul G. DuMont photo)

contractor or the prior owner does the earthmoving and grass planting, and the Bureau of Reclamation pays. Once the site is in good shape, FWS takes over and manages it.

"We anticipate Sweetgrass will hold water from March into August in a 4-acre marsh behind the plug," Donovan continued.

"Sedges, smartweed, *Rumex*, and bulrushes that once grew here

will regenerate from buried seeds and roots in just a year or two. We'll have nesting marsh wrens, red-winged blackbirds, and least bitterns here. Muskrats, deer, and sandhill cranes may use the area."

"The Pipestone wetland will have a 20- to 30-acre marsh and some water remaining to freezeup," said Dave Dewald, SCS State biologist from Bismarck, N. Dak. "An L-shaped, two-way drain with splash boards through the plug [earthen fill] was planned to give FWS managers better water control." FWS expects mallards, gadwall, and blue-winged teal will nest here.

"The 1-1/2-acre pothole restoration on Jake Beck's land near Bowdon, N. Dak., is one of our SCS-FWS 'extension' efforts," Donovan said.

"Part of Mr. Beck's land was already planted in CRP when FWS reached agreement with him in fall 1988."

The landowner builds the ditch plug, then seeds the plug and down-drainage ground with a typical CRP mixture. He allows native marsh grasses to volunteer above and below the plug. Seeding of native wetland plants isn't needed. FWS pays for the plug-building work based on the number of cubic yards of dirt moved plus a bonus payment per wetland.

"In North Dakota, we all work together to help farmers and ranchers save and restore wetlands,



Over 600 migrating mallards, gadwalls, pintails, and teal and several dozen shorebirds were using this wetland east of Bismarck, N. Dak., this September morning. Flushed waterfowl often will circle, recircle, then alight again on the same wetland. (Clayton Wold photo)

wildlife, and water quality," SCS'er Dewald added.

"In South Dakota, I get the list of CRP participants from the Agricultural Stabilization and Conservation Service (ASCS) offices in the six counties I cover," said FWS refuge manager Gilbert. "I mail information to CRP enrollees about wetland restoration. After the landowners respond, we get together and talk about benefits, the restoration program, FWS payments and obligations, and landowner costs and obligations."

Tom Quinn, SCS district conservationist at Webster, S. Dak., said he encourages producers on all lands in Day County to work with FWS and State Game, Fish, and

Parks people on wetland restoration.

Day County landowners like Maurice Olson of Waubay, S. Dak., are successfully seeding switchgrass as a major part of their CRP plantings.

"They started using it mainly for weed control and to keep out invading thistle," SCS'er Vicuna said. "But switchgrass is good for grazing and for gamebird cover and nesting."

Olson got help from the Day County Conservation District in his switchgrass planting. And the State Game, Fish and Park Department is helping Olson's son, Ron, with planting seedlings and older trees.

"At this Kingsbury County, S. Dak., site, we signed a long-term

FWS easement for wetland restoration with Tim Vanderpan and the other owners," explained Tom Tornow, the high-spirited assistant manager at the FWS wetland district office for waterfowl production in Madison, S. Dak.

"We helped these landowners get enrolled in the Water Bank," SCS'er Vicuna said. "SCS gave them technical assistance, FWS paid them for wetland restoration, and ASCS paid for Water Bank participation."

"We built two ditch enclosures that created separate 48- and 19-acre wetlands," Tornow added. "Waterfowl use the grassed areas for nesting and brooding and the water sites for feeding and loafing."

SCS and FWS also work closely on many wetland restoration and soil conservation aspects of the master plans for Lake Thompson in South Dakota and Chase Lake in North Dakota.

"None of the different agencies has enough money or staff by itself to help all the landowners in its jurisdiction improve their wetlands, regenerate their ground water systems, and upgrade their water quality," Vicuna said.

"But when we put programs and practices together," FWS'er Tornow enthused, "the total package gives landowners something to smile about and really work with."

"The key to getting more wetlands is combining programs and involving everybody," SCS'er Vicuna summarized succinctly.

Paul G. DuMont, associate editor, *Soil & Water Conservation News*, SCS, Washington, D.C.

The islands will be seeded with dense grass or shrubs to provide nesting cover for waterfowl and pheasants. By controlling water levels before and during nesting, the islands will provide a fairly predator-free environment.

James River Flooding Creates A Wetland

FARMER HAROLD Klimisch of Yankton, S.D., conferred with the South Dakota Department of Game, Fish and Parks on how to enhance his existing private game preserve for waterfowl.

"This 13 acres of cropland along the James River floods every other year on the average," said Klimisch. "It remains wet long enough in the spring to limit cropping to short-season crops such as soybeans."

Klimisch and the State came up with the idea to put in dikes along the river banks with one-way pipes to allow floodwater to spread over the 13-acre area. He applied through the Yankton Conservation District for assistance in planning and funding.

"We designed plans to take advantage of the flooding and to hold on to the water," said Gerald

"Turk" Pilker, SCS civil engineering technician in Vermillion, S.D. "We allow floodwater to enter and cover the 13 acres. As the river water levels drop, one-way pipes and the dikes will retain water at depths of 3 to 8 feet."

Most of the area to be flooded was excavated an additional 1 to 4 feet to increase the standing-water depth. The excavation would also provide fill for the dikes and for two wildlife islands.

The islands will be seeded with dense grass or shrubs to provide nesting cover for waterfowl and

acres of trees, grass, and food plots."

SCS, the State Department of Game, Fish and Parks, the Yankton Conservation District, the Agricultural Stabilization and Conservation Service (ASCS), the James River Water Development District, and the U.S. Corps of Engineers all worked together to provide the needed technical and financial assistance for improving Klimisch's hunting preserve.

Portions of the newly-developed habitat were eligible for ASCS cost-sharing through the Conservation Reserve Program and the Agricultural Conservation Program. The Water Development District will also cost-share.

Klimisch also agreed to exempt hunting on the newly developed habitat—"I'll leave the area for wildlife production only and have fee hunting on other areas."

"I'm excited about this project," said Klimisch. "It's by far the best habitat I've developed, and I've been in the habitat-development business for many years!"



One-way pipes allow early spring floodwaters from the James River to flood the 13-acre wetland area and isolate the waterfowl-nesting islands from predators. (Gerald "Turk" Pilker photo)

pheasants. By controlling water levels before and during nesting, the islands will provide a fairly predator-free environment.

"Next to his wetland development area," Pilker added, "we're helping Mr. Klimisch plant several

Karl Whitmore, Resource Conservation & Development coordinator, SCS, Pierre, S.D.

Family Farming

CRP Protects Natural Resources

West-central Minnesota could surely serve as a national model for demonstrating soil and water conservation achievements.

Kandiyohi County farmers have enrolled about 36,000 acres into the Conservation Reserve Program (CRP). Another 10,000 acres are eligible for this program.

According to Steve Erickson, U.S. Fish and Wildlife Service (FWS) biological technician, "The Conservation Reserve Program is helping the Soil Conservation Service, the Kandiyohi County Soil and Water Conservation District, the Minnesota Department of Natural Resources [DNR], the U.S. Fish and Wildlife Service, and the Agricultural Stabilization and Conservation Service work more closely with other agencies and the private land user."

Although CRP is having a big conservation impact in western Minnesota, an offshoot of that program is extensive wetland restoration, seeding of areas to native prairie grasses, and tree planting.

A 40-percent return and interest in restoring wetlands on CRP has resulted from an SCS and FWS letter that was sent to all farmers holding CRP contracts. In 1989, 720 acres were restored. Some wetland restoration projects are in

excess of 300 acres, and one is over 1,000 acres.

"As long as Minnesota's citizenry want wildlife, they must realize that private landowners have the biggest resource for wildlife habitat," said Leroy Dahlke, DNR area wildlife manager.

Through the Waterbank Program, Pheasants Forever is donating half the cost of seed and DNR is paying the other half. Steve Smith, SCS technician and project coordinator for the Willmar Chapter of Pheasants Forever, said, "Some of our soils are pretty sandy, and the native grasses we've been planting are attracting deer, pheasants, and numerous species of ducks. Inter-agency efforts are being targeted to help 32 species of waterfowl and their habitat needs. There are hundreds of other nongame species of animals that are being helped."

Pat Corrigan, SCS district conservationist in Kandiyohi County, said, "The CRP, Reinvest in Minnesota (RIM), and Waterbank Programs are a real plus for us in Minnesota. The RIM program is a State-funded effort which complements CRP and enhances the natural resource base by the creation and protection of fish and wildlife habitat, erosion control, and improved water quality."

West-central Minnesota's success is due to these local, State, and Federal efforts, and a lot of cooperation among its citizens. They believe in themselves and believe they can continue to learn and help each other.

The Word Is Spreading About CRP

Violet Jensen reads and talks to a lot of people about farming and conservation. Jensen, a former nurse, learned farming from her father and has been farming fulltime since 1983. "I want to do what is right, conserve the soil, attract wildlife, and produce quality crops. I ask lots of questions and



Violet Jensen inspects a wildlife stand of brome grass on her CRP acreage in Chippewa County.

am willing to try different things to achieve positive results," she said.

"I enrolled 18 acres into [the Conservation Reserve Program] CRP in 1987 because I wanted to try the program and see if it would solve an erosion problem on some of my steep slopes," Jensen said. Richard Giles, a Soil Conservation Service district conservationist in Chippewa County, Minn., said a

In Minnesota

mixture of alfalfa, smooth brome grass, timothy, and sweet clover is doing a good job of controlling the soil erosion on her highly erodible land now in CRP.

A satisfied Jensen has also planted a 1,600-foot-long windbreak with green ash seedlings. Jensen plans to plant a spruce windbreak to control blowing soil and to plant 12 rows of trees and shrubs to attract more wildlife.

CRP Brings New Life to Family Farms

When the Korteum family settled in Blue Earth County, Minn., and started farming there in 1850, they cleared the land and plowed up and down the slopes. They left behind severely eroded fields and no refuge for wildlife.

Steve Korteum, a fourth generation family farmer, raises corn, soybeans, and wheat on his part of the farm. Today, he and his brothers, Larry and Philip, and their father, Francis, all have land in the Conservation Reserve Program (CRP). "I signed up for the CRP in 1987

and as far as I'm concerned, this is the greatest program ever," Steve said.

In 1988, SCS and the U.S. Fish and Wildlife Service (FWS) notified landowners with CRP contracts of opportunities to restore wetlands on their CRP acreage. Again, Korteum jumped at the chance. In 1989, he restored 1.5- and 2.5-acre wetland sites.

Minnesota Pheasants, Inc., provided seed for corn food plots to be planted around Korteum's wetland areas. Korteum's CRP contract was modified to allow wetland restoration, and the \$895 restoration cost was paid for by the FWS. Korteum's only cost was his time.

"Since we've restored these wetlands, we now have most of the wildlife in this area—there is no place else for them to go," Korteum said. Wildlife attracted to these wetlands include geese, teal, wood ducks, snipe, mallards, kingfishers, deer, and many kinds of songbirds.

Another Minnesota participant in the CRP is La Verne Hensel, a 78-year-old retired farmer, who enrolled 23 acres of highly erodible land in CRP in 1988.

"I've owned this farm since 1948. Unfortunately, most of the topsoil on these 23 acres has washed away. I wanted to save the remaining clay soils, and I'm doing that now, thanks to the CRP," Hensel said.

Hensel's son, Tom, encouraged his father to restore a 3-acre wetland on his CRP land in 1988. That restoration, like the Korteums', came from joint SCS/FWS efforts.

"I really like this CRP-wetland area. My family, including my grandchildren, like the wildlife and they also like to hunt," said Hensel.

Wetland Restoration On CRP

Between 1987 and 1990, the U.S. Fish and Wildlife Service (FWS), in cooperation with SCS, other USDA and State resource agencies, private organizations, and, especially, private landowners, restored 4,452 wetlands covering 13,060 acres in Minnesota. Of these, 2,224 wetland basins were on 5,490 Conservation Reserve Program acres.

During this period, nearly 7,000 wetlands on some 21,000 acres in FWS's 8-State North-Central Region were restored. Minnesota's contribution was 64 percent of the total restored wetlands and 62 percent of the total restored acreage.



Shown is a fine example of a Minnesota wetland area, in Blue Earth County. (Michael Price photo)

These Conservation Reserve Program stories were written by **Michael Price**, public affairs specialist, SCS, St. Paul, Minn.

Wisconsin Wetlands Restored

WHERE HAVE ALL the reptiles gone? And the amphibians and the insects? "Wildlife" usually connotes game species. But the nongame species are certainly more numerous and no less important to the ecology of an environment.

The key to biodiversity is having a variety of habitats. That's why so many Ozaukee County, Wis., landowners wanted to restore wetlands on old corn fields. That's why the Soil Conservation Service's district conservationist there promoted wetland restoration at every opportunity. And that's why the State's largest restoration effort led to hand-in-glove cooperation among the four "wildlife conservation" agencies in the State's smallest county.

In 2 years, 110 small wetlands have been restored, all on Conser-

vation Reserve Program (CRP) land, in the silty clay loam soils of Ozaukee County along Lake Michigan. In a 2-1/2-mile radius, 2,500 acres have been enrolled in CRP and 30 wetland areas restored at an average cost of \$345 per wetland for earthmoving and tile breaks.

The CRP has been a popular program, with participation from many retired landowners. In almost all cases, cost-sharing through the U.S. Fish and Wildlife Service (FWS) and the Wisconsin Department of Natural Resources (DNR) has paid the costs of earthmoving, with only a portion of the costs of establishing vegetative cover left to the landowner.

Armin Schwengel, 74, a retired DNR wildlife manager and Earth Team volunteer for 2 years, reviewed CRP plans and soil maps to select good potential sites, under the direction of Dan Lynch, SCS district conservationist. Schwengel field checked each site and proposed a restoration plan to the landowners. He now works for DNR again on the wetland restoration project, in office space donated by the Ozaukee County Land Conservation Department.

Eldon McLaury, FWS, lent support to the effort with a \$20,000 wetland restoration contract for a bulldozer to excavate the larger jobs. DNR provided a backhoe and operators for tile breaks.

Lynch promotes the wetland restoration option when he writes CRP plans. He encourages warm-

season prairie grasses, such as switchgrass or big bluestem, around the new wetland, with clumps of trees and shrubs planted on field edges to attract and protect upland wildlife.

The DNR provides landowners the use of a Truax grass-seed drill for planting prairie grasses. The drill was purchased by the Wisconsin Waterfowl Association for use in this project and on CRP land in southeastern Wisconsin.

The DNR has been monitoring the restored wetlands for return of wildlife. After 2 years, ducks were sited on every wetland. And, the presence of duck broods was unanticipated, since the ponds are small, usually temporary, and not designed for the long-term water storage needed for broods.

Monitored wildlife species are only part of the picture. A walk around these restored wetlands reveals meadow voles underfoot and butterflies everywhere. American toads and green and leopard frogs are also back in numbers. Marsh wrens, sandpipers, and woodcock began nesting in the area again. Wetland plants appeared within a year after restoration in areas that had been intensively cropped for generations.

"These fields have had all kinds of chemicals dumped on them," said McLaury, "but if you move aside the silted-in topsoils and expose the original bottom soil, wetland plants sprout up immediately."

Renae E. Anderson, public affairs specialist, SCS, Madison, Wis., and **Tom Thrall**, biologist, SCS, Madison, Wis.

A frog enjoys the benefits of a restored wetland. The nongame species are more numerous, but no less important, to the environment than game species. (Tim McCabe photo)



"You'd never know this area was a dryland pasture a little over a year ago."

Wildlife Rewards Cleanup

AN ALLIGATOR basked in the midmorning sun. Sandpipers and ibis fed along the shoreline. Red-winged blackbirds called noisily from the lush vegetation. A half-dozen woodstorks, an endangered species, waded in the shallow water of the wetland.

"You'd never know this area was a dryland pasture a little over a year ago," exclaimed Soil Conservation Service technician Susan Arrants of the Okeechobee, Fla., office. Only the 7-foot-tall dikes rising from the flat central Florida landscape indicated that the area had been transformed.

A 15-acre waste storage pond, along with a floodwater detention structure that created another 12 acres of wetlands, was constructed

as a waste management system. SCS assisted dairy farmer Vernon Rucks and his family with the project.

The Rucks are cooperators with the Okeechobee Soil and Water Conservation District. Their Eagle Island Dairy lies within the watershed area of Taylor Creek, which flows into the north end of Lake Okeechobee; this second-largest freshwater lake in the Nation serves as the chief water supply for much of south Florida.

During the 1970's, the lake's water quality declined seriously, and studies showed the primary cause to be high nutrient loading. Federal and State governments responded by helping dairy farmers clean up waste. State clean water rules required waste management systems.

Typical systems installed involve confining herds to areas where the run-off and drainage are captured in a solids trap. Water moves from there to waste storage ponds, and is then used to irrigate cropfields or hayfields.

"SCS has provided planning, design, and layout for the majority of

the systems," according to Steve Mozeley, SCS district conservationist, Immokalee, Fla. "All of the early plans focused on quick reductions in phosphorus leaving the dairies. However, we soon learned that areas such as Eagle Island attracted varied wildlife, while others attracted few species."

An evaluation showed which construction features favor wildlife. SCS now includes recommendations for enhancing wildlife habitat in the planning process.

The Rucks family plans to improve their wildlife area by planting some trees in the wetland area to encourage nesting by wading birds. "It's not just the birds," noted Jenny Rucks. "We've also seen foxes, bobcats, alligators, deer, and otter."

"We built this system to clean up the water, but we're getting a lot of enjoyment from the wildlife," added Vernon Rucks. "There's a cost to these systems, but in the long run, it will be the best for everybody."

John Vance, biologist, SCS, Gainesville, Fla.

Farmers Feel 'It's The Pits!' For Wildlife

COLORADO FARMERS can conserve the San Luis Valley's water supply and create wildlife habitat by building recharge pits to divert ditch water into the ground.

Nearly 20 years ago, as San Luis Valley landowners changed from flood irrigation to center pivot irrigation, the source of irrigation water changed from spring runoff and

summer pumping of ground water to pumped water. The spring runoff is now used to irrigate smaller acreages of pastureland or hayland.

In this conversion process from flood irrigation to center pivot sprinklers, the water table declined and cross ditches that supported willows and grass were lost,

Landowners use two types of systems that effectively recharge the ground water...

leaving few wetlands for wildlife habitat. Ron Miller, Soil Conservation Service district conservationist in Center, Colo., became concerned over these losses. He encouraged landowners to build recharge pits in the corners of center pivot fields. These excavated pits help recharge the aquifer with spring runoff as well as benefit wildlife.

The recharge pits provide ground water recharge to the unconfined aquifer under the San Luis Valley. They also serve as natural filters for this ground water. The pits keep the water table stable for maintaining more than 1,000 pumped wells. District research on one recharge site showed that in 4 years the pit put



Landowners use conservation practices, such as center pivot sprinklers, for more efficient use of irrigation water. (Gene Alexander photo)



Landowners who have recharge pits have a place to run their water during peak flows in the irrigation canals. Diverting water to pits reduces the chance of canal water flooding the landowners' fields. (Mary Peterson photo)

enough water in the ground for 6 years of irrigation.

In addition, the recharge pit areas provide excellent duck nesting habitat and watering sites for area wildlife such as deer and pheasants.

Fifteen percent of the northern San Luis Valley landowners now have recharge pits on their center pivot fields. Miller's goal is to increase this number each year, both for the wetland values and to recharge an overextended ground water resource.

The Valley is the highest desert agricultural area (average eleva-

tion is 7,500 feet) in the United States with average annual precipitation of less than 7 inches. Snow melt and ground water irrigate more than 250,000 acres of potatoes, small grains, and alfalfa.

Landowners use two types of systems that effectively recharge the ground water and provide excellent wildlife habitat.

Ponds or pits require excavation or construction to impound water. This type of system is self-maintaining, handles larger volumes of water, occupies smaller areas, has more consistent recharge, and provides excellent wetland habitat. When dry, the ponds or pits are subject to wind erosion if not adequately covered with vegetation.

The other system, flooded basins, does not require major earthmoving or construction activities in the flat San Luis Valley. The basins are generally maintained in seeded grasses for pheasant habitat and are flooded only when canal deliveries are available.

Landowners who build recharge pits can obtain technical assistance and are eligible for cost-share money under some Federal programs.

Mary Peterson, public affairs specialist, SCS, Lakewood, Colo.

Improving A Wetland

FROGS CALLED "ribbit, ribbit," meadowlarks sang, and red-winged blackbirds chattered. Plentiful signs of life greeted the Soil Conservation Service's Salmon, Idaho, district conservationist while touring an improved wetland with Ed and Peg McCallum and their two children. On the property, the McCallums pasture horses for their hunting and trail outfitter business.

"I was skeptical at first," noted Peg McCallum. "But since we completed the ponds, we've spent hours and hours in the area because we enjoy watching nature. It's been worth the effort."

The effort began August 17, 1988, when Ed McCallum, a cooperator with the Lemhi Soil and Water Conservation District, called SCS for help in planning and designing a wetland improvement. He wanted to turn 2 acres of cattails into ponds with open water that could provide improved habitat for a variety of wildlife, and in the process raise a few trout.

To begin, the district conservationist helped obtain permits from the Army Corps of Engineers and the State to allow work in the wetland. SCS biologist Frank Fink visited the proposed area and offered advice.

Bob Lehman, SCS civil engineer, drew up a list of "how to's" to

make the project work. To finance the project, the McCallums applied to the State's Habitat Improvement Program (HIP). Their project was approved by the Idaho Fish and Game Department, with HIP picking up about 30 percent of the work cost.

On January 17, 1989, the district conservationist laid out the project, even though the weather was 10 degrees below zero. Then the work began. Five ponds, including an S-shaped channel, were cut 4 to 10 feet deep to provide open water areas for waterfowl. Wooden structures were built to control the water levels. Areas next to the three lower ponds were kept low so that cattails and other water-loving vegetation could grow.

Spoil from pond construction was spread on high ground and seeded with a mixture of grain, grass, and legumes. In the fifth pond, a small island was built where a nesting area of straw was provided. New fencing protected the area from livestock.

On March 23, 1989, the district conservationist inspected and approved the wetland. During the visit, two mallard ducks taking refuge in the cattails near the ponds and a pair of teal taking wing nearby offered proof of the project's success.

Ralph Swift, district conservationist, SCS, Salmon, Idaho

International

International Conservation: It's as Old as the Hills

ALL CONSERVATION is international in the sense that few of the methods tried, at least those that are successful, remain isolated in one region forever.

The early European migrants to North America who would make a "Nation of immigrants" brought their culture, including their agriculture. The oft-told story is that America's problems with soil erosion derived from a type of agriculture developed in a land of moderate rainfall and slopes. Its transferral to a land of intense rainfall and steep slopes caused soil erosion.

But that is only part of the story. Europe also sent methods of conservation. Scottish farmers had long been regarded by their contemporaries as backward. But in the 18th century, Scotland revolutionized the way its hilly lands were farmed to such an extent that its farming became regarded as the best in Europe. Sir John Sinclair converted the Scots to horizontal ridges (on the contour). For very steep lands, Sinclair recommended the turn-wrest plow, a progenitor of the hillside plow.

Some of the German groups settling in North America became model farmers who concentrated on maintaining fertility on small, intensively used farms rather than

following the pattern of land exhaustion, abandonment, and westward migration.

The immigrants learned from the Native Americans, who had adapted agriculture to climate and geography. Native American methods varied from the slash and burn of the East to intricate irrigation and water-spreading systems in the West. Americans during the 18th and 19th centuries made many adaptations and ingenious inventions of their own.

When the Soil Conservation Service started field operations in the 1930's, it also started investigating the nature and control of erosion. Much of this involved research at experiment stations.

But Hugh Hammond Bennett, then Chief of SCS, and Walter Lowdermilk, the Assistant Chief, were firm believers in learning from foreign countries. Their interest extended not only to particular practices, but also to a broader understanding of the impacts of erosion on the welfare of nations.

Both traveled widely. On his trip to Europe, the Mediterranean area, and the Middle East, Lowdermilk examined the influ-



Terraced hills in background show effort in Syria 50 years ago to cope with the steep terrain. Rock terraces in foreground have fallen into disrepair, allowing erosion. (W.C. Lowdermilk photo)

Conservation



This 50-year old photo shows a terraced valley in Algeria. (W.C. Loudermilk photo)

ence of erosion on civilization. SCS has distributed more than 1 million copies of his bulletin about the trip, "Conquest of the Land Through 7,000 Years."

SCS erosion history staff studied historical soil conservation prac-

tices, in both the Old World and the New, for solutions that could be used in work of the new and burgeoning Soil Conservation Service.

Other countries established soil conservation agencies in the late 1930's and 1940's. Several founders of those agencies visited

and studied the U.S. system. Indeed, a trip was almost obligatory. SCS made its published manuals on soil conservation available in Spanish.

SCS started a system whereby young students of soil conservation would come to the United States to work in field offices and learn the latest conservation methods. This method had another important aspect: When returning to work in his or her native land, the conservationist should be attuned to any cultural or geographical conditions that might call for modifications of the methods used in the United States.

In the decades since World War II, SCS has become more involved in foreign assistance missions. Current thinking on the best means of technology transfer seems happily matched with some of SCS's preferences and operating methods. Throughout its history, SCS has emphasized the technically trained person assisting the land user.

Experience has shown one of the preferred methods of technology transfer to be when the foreign country plays a role in the decision-making. Institution-building, such as helping establish a soil and water conservation unit operated by that country's citizens, bears great promise, not only for the present, but also for the future—which, after all, is what conservation is about.

Douglas Helms, national historian, SCS, Washington, D.C.

The SWMU was set up to halt and reverse environmental deterioration...

Conservation Gambian Style

IF ALEX Haley had never written his prize-winning novel "Roots" partially set in The Gambia, many people would never have heard of the country. The smallest independent nation in Africa, it occupies a mere sliver of land on the continent's bulging West Coast and is about the size of Connecticut.

A decade ago there was no organization in The Gambia to counter the massive destruction of the nation's natural resources. But the Soil and Water Management Unit (SWMU), modeled after the USDA Soil Conservation Service and created by the U.S. Agency for International Development, has changed that.



Harvesting rice in The Gambia is a labor-intensive agricultural operation. (Paul DeArman photo)

The SWMU was set up to halt and reverse environmental deterioration largely caused by abusive agricultural practices, to increase and stabilize the production of food and cash crops, and to reduce

the damage to natural resources from periodic drought and other adverse climatic conditions. Another goal was to deliver material and technical and educational services in soil and water management to the rural population.

The Unit has built a good reputation, largely due to its eager and dedicated staff. Staff members were educated in the United States in a number of disciplines, including agronomy, soil science, civil engineering, and forestry. Many spent their summer months with SCS gaining on-the-job experience.

This small but talented group returned to The Gambia to find themselves in an organization with one of the most difficult and demanding tasks of any agency in the country's government.



The Gambia's Soil and Water Management Unit helps stabilize the production of food and cash crops. (Paul DeArman photo)

The SWMU began to implement its conservation program in 1984. First efforts were concentrated in the lowlands, reclaiming for rice production land areas that are affected by the salty tides of the Gambia River.

Since that time, the Unit helped organize the country's first conservation district in 1987 and continued to broaden its scope of activities. The SWMU recently completed its first integrated watershed management plan that included agroforestry, rangeland, and upland conservation practices.

To further promote the watershed management concept, the SWMU recently began development of a national natural resource policy. Lawrence Clark, SCS deputy State conservationist in Indiana, worked on assignment with a multidisciplinary, interagency task force to aid the development process.

The Unit meets requests from farmers, villagers, government agencies, and nongovernmental development agencies. SWMU provides technical assistance to landusers in the planning and implementation of conservation practices. In return, the landusers provide labor on a self-help basis.

Through its diligence, the Unit is creating an awareness of the benefits of resource conservation. And it is showing people that they can help solve their own resource problems.

Paul DeArman, SCS, resident technical advisor for the Soil and Water Management Unit, Banjul, The Gambia

Aquaculture, Rice Give Focus to Mexico Duty

AQUACULTURE was the focus of a Soil Conservation Service 6-week assignment to the Usumacinta area of Tabasco, Mexico, in 1988. Ronnie Thomas, SCS wildlife biologist, Hattiesburg, Miss., offered technical assistance to landowners on aquaculture, irrigation, and conservation planning.

In the river flood plain that Thomas visited, rice fields take up some 40,000 acres, and crop production is mostly dependent on rainfall. However, because several producers are installing irrigation systems, there is a potential for greater production and growth of other crops.

Farmers were interested in aquaculture and the possible double-cropping of rice and crawfish on the same fields. Thomas believed it would be a challenge to raise the two together.

"When you grow rice and crawfish, you really have to know your

chemicals and know when to apply them to avoid killing the crawfish," explained Thomas. Until producers learn to handle the complex schedule, he advised that crawfish be raised at nearby beach areas, apart from the rice-growing areas.

Thomas recommended that producers conduct marketing studies to test consumer demand for fish, crawfish, and freshwater prawns before launching large-scale commercial enterprises. Once the difficulties are mastered, he noted, aquaculture could give a boost to the area's economy, helping producers and creating new jobs.

Thomas' work included the forests. He found that farmers wanted to leave enough forest land to provide aesthetic value and habitat for various species of wildlife. They realized that the forest provides an environment that can act as a filter system or buffer zone between the rice fields and the river, and help maintain good water quality.

"From what I saw, both water quality and environmental concerns need everyone's close attention," summed up Thomas.

Mary Jo Stine, associate editor, *Soil and Water Conservation News*, Washington, D.C.

USDA Hosts Eager Students At Science Day

What do white lace and brown soil have in common?

Eleven-year-old Nadia Oukera, a fourth grade student at Graham Road Elementary School in Falls Church, Va., can tell you. And her answer is purely personal.

Oukera wore her prettiest, lace-trimmed dress to attend Public Science Day on February 14 at the U.S. Department of Agriculture in Washington, D.C. But the dainty dress—perfect for Valentine's Day—did not deter her from dipping her hands deep in trays of soil displayed by the Soil Conservation Service.

Public Science Day, a hands-on event for elementary school students in the greater Washington, D.C., area, was sponsored by the American Association for the Advancement of Science (AAAS), the world's largest federation of scientific and engineering societies. Seven thousand students, 95 schools, and numerous scientific groups participated.

Four USDA agencies featured hands-on activities: the Animal and Plant Health Inspection Service, the Food Safety and Inspection Service, the Extension Service, and SCS.

The object of the SCS soils exhibit that captivated Oukera was to show students that soils differ not only in color and texture, but also in appropriate uses.

Students learned that there are more than 70,000 kinds of soil in the United States. Some are best for crops. Some are perfect for building roads. Others—fragile forest soils on steep slopes, for example—are best left entirely alone because if trees are cut and the soil is bare, the soil will wash or blow away, polluting our streams and rivers.

Hari Eswaran, SCS national leader, World Soil Resources, introduced the youngsters to a sparkling world of color: brilliantly hued minerals revealed in a section of soil viewed through a polarizing light microscope.

When asked what they saw through the microscope's tiny eye, Chris Kolta, 11, and Kelly Hanton, 10, both of Annandale Terrace Elementary School in Annandale, Va.,

exclaimed, "Huge brown and yellow rocks! Gold honey on brown and white boulders." One of the students said, "I never knew soils were so beautiful."

The boys' enthusiastic reaction to the exhibit would have pleased AAAS Executive President Richard Nicholson. "One of our primary goals is to broaden grade school students' understanding of the increasing role of science in everyday life," Nicholson said. "We strive to ignite their interest, then encourage them to pursue careers in science."

Public Science Day is scheduled to be held next in Chicago, February 7-12, 1992. Boston and San Francisco will be hosts in 1993 and 1994, respectively.

For more information contact: Public Affairs Office, American Association for the Advancement of Science, 1333 H Street NW., Washington, DC 20005, or telephone 202/326-6400.

Shirley Foster Fields, public affairs specialist, SCS, Washington, D.C.

A 'Winning' Effort on Video

The video "Every District A Winner" was recently released by the National Association of Conservation Districts (NACD), in cooperation with the Soil Conservation Ser-

vice and the Goodyear Tire and Rubber Company.

The video spotlights the Goodyear/NACD Conservation Awards Program and encourages district participation in the program. State association presidents and executives, State conservation agency administrators, State con-

servationists, and NACD offices will receive copies.

The video is available from NACD, P.O. Box 855, League City, TX 77574-0855, for loan or purchase in VHS format. Purchase price is \$6 and purchasers may make copies. For further information please call 713/332-3402.

Bay Savers Honored

One of the nation's oldest conservation organizations, the Izaak Walton League of America (IWLA), has recognized winners in its Fifth Annual Chesapeake Bay Conservation Awards. The IWLA has grown since 1922 to an organization of 51,000 members dedicated to protecting wetlands, enhancing fish and wildlife habitat, and improving the environment.

The Annual Chesapeake Bay Conservation Awards were established jointly by the IWLA and the Du Pont Company. The intent is to draw national attention to those groups, individuals, businesses, and governments that have played a leadership role in protecting and restoring the bay's unique resources.

Winners were honored in 10 categories: Agriculture, Business and Industry, Construction and Land Development, Education, Fisheries and Wildlife, Local Government, Public Service, plus Special Honorees (individuals), the Du Pont Skipjack Award for Journalism, and the Decon Devoe Youth Award.

The agricultural winner is the R.M.D. Shultz dairy farm in Danville, Pa., which implemented a variety of conservation practices to reduce agricultural pollution and improve water quality.

The local government winner is the Northern Virginia Soil and Water Conservation District of Fairfax, Va., for its commitment to educating the public on ways individuals can help protect and restore the bay.

The public service winner is volunteer Lina Vlavianos of Millersville, Md., for her "extraordinary" contribution to bay preser-

vation through focusing on sediment and erosion control programs.

"The League congratulates these hard-working conservationists for making a difference in the fight to save the Chesapeake Bay and its watershed," said IWLA Executive Director Jack Lorenz. "The future of the bay looks hopeful if citizens get involved in restoration efforts."

Dr. Bruce W. Karrh, vice president of safety, health, and environmental affairs for Du Pont, agreed, adding, "While rebuilding and maintaining a healthy Chesapeake Bay ecosystem may be difficult, with the help of people such as these honorees, the bay will continue to benefit future generations."

Alyssa DeVito, public affairs specialist intern, SCS, Storrs, Conn.

League Purchases Redwoods For State Park

The Save-the-Redwoods League in San Francisco, Calif., recently purchased a 50-acre parcel of land along the Mattole River. The parcel includes many large old-growth

redwood trees, as well as upland forest and meadow.

This parcel of land will be included in the Sinkyone Wilderness State Park, which lies along the Pacific Ocean on California's northern coast. The Park provides wilderness hiking and camping, with walk-in primitive campsites in most areas.

The Save-the-Redwoods League is a nonprofit, national conservation organization that buys coast

redwood and giant sequoia forest land for protection in the California Redwood State Parks and Sequoia and Redwood National Parks. Since 1918, the League has donated more than \$65 million to help purchase 265,000 acres of redwood forest.

Mary Peterson, public affairs specialist intern, SCS, Lakewood, Colo.

Moving?
Send present mailing label and new
address including zip code to:

U.S. Department of Agriculture
Soil Conservation Service
P.O. Box 2890, Room 6002-S
Washington, D.C. 20013-2890

Official Business
Penalty for private use, \$300

BULK RATE
POSTAGE AND FEES PAID
USDA-SCS
WASHINGTON DC
PERMIT NO. G-267

Conservation Calendar

July	16-20	Izaak Walton League of America National Convention, Rapid City, S. Dak.
	21	American Society for Horticultural Science Annual Meeting, University Park, Pa.
August	4-7	Soil and Water Conservation Society 46th Meeting, Lexington, Ky.
	4-9	"Urban Runoff Effects on Receiving Systems: An Interdisciplinary Analysis of Impact, Monitoring and Management," Engineering Foundation, Crested Butte, Colo.
	9-11	17th Annual Summer Conference, Natural Organic Farmers Association, Amherst, Mass.
	10-14	National Envirothon, Central Aroostook Soil and Water Conservation District, Aroostook, Maine
September	17-19	National Water Exhibition, International Water and Effluent Treatment Exhibition '91, Birmingham, England
	21-25	Rally 91, The Land Trust Alliance, Waterville Valley, N.H.
	28-Oct. 2	Association of State Dam Safety Officials' Annual Conference, San Diego, Calif.
October	15-17	National Stewardship Conference, Duluth, Minn.
	16-18	Toxic Air Pollutants from Mobile Sources, Air and Water Management Association, Detroit, Mich.